

## **METHOD FOR DYNAMIC ACCELERATION IN AN ARTICLE TRANSPORTING SYSTEM**

### **Abstract of the Disclosure**

A method for controlling the serial transport of articles to achieve a predetermined gap between transported articles. First and second articles are transported serially on a transport system. The velocities and positions of the first and second articles are measured during the transporting process. An adjustment for the position of the second article is determined in a periodic operating cycle using the following steps: calculating a current gap between the first and second articles, determining a distance from the second document to the edge of the predetermined gap, and calculating a minimum displacement needed to decelerate the second article to the velocity of the first article. Based on these calculations, if the distance from the second document to the edge of the gap is substantially the same as the minimum deceleration distance, then the second article is accelerated at a calculated acceleration so that to ensure that the minimum deceleration distance does not encroach into the predetermined gap, and that the second document continues to approach the predetermined gap.